

# Mineral Industry Surveys

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## **ANTIMONY IN THE THIRD QUARTER 2002**

The price of antimony metal rose steadily and substantially in the third quarter. The New York dealer price range for antimony metal, published by Platts Metals Week, started the quarter at \$0.67 to \$0.71 per pound and ended the quarter at \$1.05 to \$1.15 per pound. Industry observers attributed the significant price rise to a tighter world antimony supply. There was evidence of several mine closures in China causing diminished supply, and at the same time the economic slowdown in the United States and other countries resulted in weaker demand.

Efforts to reopen the Sunshine silver/antimony mine in Idaho reached an impasse recently. The mine has been closed for more than a year, after years of operation by the now bankrupt Sunshine Mining and Refining Company. In September, Sunshine reportedly had reached an agreement to sell the mine to Nevada-based American Reclamation Co. Under the agreement, American Reclamation would purchase Sunshine for \$100,000 and assume all of Sunshine's liabilities, which include about \$5 million in outstanding pension fund debt and undisclosed amounts for taxes and other debts. Sunshine's majority bond holder, however, has reportedly rejected the offer. In recent years, Sunshine had been the only domestic producer of antimony, which was a byproduct of the company's silver mining (Platts Metals Week, 2002b).

Recently, a Chinese Government official confirmed substantial antimony production cutbacks in China this year. He noted that China's total antimony concentrate output for the first 8 months of 2002 was 35,000 metric tons (t), down 42% from 60,000 t in the comparable period of 2001. Based on recent output, the Hunan, Guangxi, and Yunnan mines account for 64%, 27%, and 4%, respectively, of China's total antimony

concentrate output (Platts Metals Week, 2002a).

China's Hsikwangshan Mining Administration (HMA) has begun a partial restart of its southern antimony mine, closed since major flooding struck Hunan Province in August. Production of the mine in Lengshuijiang is only at 40-50% of capacity. (Metal Bulletin, 2002a).

In Kyrgyzstan, the Kadamjay Antimony Combine is currently producing about 6,000 t of antimony metal annually, but anticipates producing 7,000 t annually in 2003. Almost all of its antimony metal and oxide is exported, about one-half to the United States and one-half to other countries in the Commonwealth of Independent States, especially Russia, Ukraine, and Belarus. Kadamjay is also exploring the option of developing operations at its own mines in southern Kyrgyzstan, close to the Uzbekistan border. Much of the existing resource at Kadamjay has been exhausted and the company is aiming to develop adjacent deposits. Currently, Kadamjay imports about 6,000 t annually of antimony concentrate from Tajikistan, Kazakhstan, and Russia's Yakutia region (Metal Bulletin, 2002b).

#### **References Cited**

Metal Bulletin, 2002a, Hsikwangshan nurses antimony mine back to operation: Metal Bulletin, no. 8715, October 14, p. 8.

Metal Bulletin, 2002b, Kadamjay to raise antimony output: Metal Bulletin, no. 8713, October 7, p. 23.

Platts Metals Week, 2002a, China's Sb conc output down 41%: Platts Metals Week, v. 73, no. 42, October 21, p. 15.

Platts Metals Week, 2002b, Dream of reopening Sunshine silver mine stalls: Platts Metals Week, v. 73, no. 42, October 21, p. 13.

## TABLE 1 SALIENT ANTIMONY STATISTICS 1/

(Metric tons, antimony content, unless otherwise specified)

			2002				
	2001	First quarter	Second quarter	Third quarter			
Production:			,				
Primary smelter 2/	18,000	W	W	W			
Secondary	6,660	1,410	1,340	1,320			
Imports for consumption:	37,900	5,950 r	/ 6,860	r/ 4,810	3/		
Ore and concentrate	2,290	281	399	r/ 163	3/		
Metal	12,600	1,520	1,090	r/ 536	3/		
Oxide 4/	23,000	4,150	5,360	r/ 4,110	3/		
Exports:	9,340	5,320	2,740	r/ 646	3/		
Metal, alloys, and scrap (gross weight)	1,730	439	786	230	3/		
Oxide 4/	5,880	4,880	1,960	416	3/		
Consumption of primary antimony	13,000	3,350 r	/ 3,390	r/ 3,250			
Price: Average cents per pound 5/	65.50	60.84	64.45	93.02			
Stocks, end of period 6/	10,300	5,060	5,610	r/ 5,640			

- r/ Revised. W Withheld to avoid disclosing company proprietary data.
- 1/ Data are rounded to no more than three significant digits, except prices.
- 2/ Nearly all smelter output is trioxide.
- 3/ Data for July and August only.
- $4\!/$  Antimony content is calculated by the U.S. Geological Survey.
- 5/ New York dealer price for 99.5% to 99.6% metal, c.i.f. U.S. ports.
- 6/ Producer and consumer stocks.

 $\label{eq:table 2} \mbox{Industry Stocks of Primary Antimony in the} \\ \mbox{United States 1/}$ 

(Metric tons, antimony content)

		2002 2/				
Class of material	First quarter	Second quarter	Third quarter			
Metal	774	769	751			
Oxide	4,030	4,580	r/ 4,640			
Other 3/	253	252	r/ 250			
Total	5,060	5,610	r/ 5,640			

- r/ Revised.
- 1/ Data are rounded to no more than three significant digits; may not add to totals shown.
- to totals shown.

  2/ Estimated 100% coverage based on reports from respondents who held 90% of the total stocks of antimony at the end of 2001.
- 3/ Includes ore and concentrate, sulfide, and residues.

 ${\bf TABLE~3} \\ {\bf INDUSTRIAL~CONSUMPTION~OF~PRIMARY~ANTIMONY~1/~2/} \\$ 

(Metric tons, antimony content)

		2002			
Class of material consumed	2001	First quarter	Second quarter	Third quarter	
Metal	1,620	W	W	W	
Oxide	11,300	2,830	r/ 2,870	r/ 2,810	
Other 3/	80	525	531	r/ 443	
Total	13,000	3,350	r/ 3,390	r/ 3,250	

- r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."
- $1/\,\text{Data}$  are rounded to no more than three significant digits; may not add to totals shown.
- 2/ Estimated 100% coverage based on reports from respondents who consumed 69% of the total antimony in 2001.
- 3/ Includes sulfide and residues.

## ${\bf TABLE~4}$ REPORTED CONSUMPTION OF PRIMARY ANTIMONY, BY CLASS OF MATERIAL PRODUCED 1/

## (Metric tons, antimony content)

		2002 2/				
Product	2001 2/	First quarter	Second quarter	Third quarter		
Metal:						
Bearing metals and bearings	W	W	W	W		
Other 3/	2,800	852	r/ 837	r/ 811		
Total	2,800	852	r/ 837	r/ 811		
Nonmetal:	_					
Ceramics and glass	W	W	W	W		
Plastics	W	W	W	W		
Other 4/	2,590	765	r/ 789	r/ 738		
Total	2,590	765	r/ 789	r/ 738		
Flame-retardants:	_					
Plastics	6,210	406	r/ 732	r/ 691		
Other 5/	1,380	1,330	r/ 1,030	r/ 1,010		
Total	7,580	1,730	r/ 1,770	r/ 1,700		
Total reported	13,000	3,350	r/ 3,390	r/ 3,250		

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

 ${\bf TABLE~5}$  U.S. IMPORTS FOR CONSUMPTION OF ANTIMONY, BY CLASS AND COUNTRY 1/

## (Metric tons, antimony content)

				2002			
		First	Second				January-
Class and country	2001	quarter 2/	quarter 2/	June	July	August	August 2/
Ore and concentrate:							
Australia	314						
China	1,530	100	337	40	40	79	556
Other	444	181	62		19	26	287
Total	2,290	281	399	40	58	105	844
Metal:							
China	9,730	1,150	712	225	117	113	2,090
Hong Kong	1,780		56		36		92
Mexico	667	231	265		3	122	621
Peru		100			100	31	231
Singapore	123						
Other	315	34	61	20	6	9	109
Total	12,600	1,520	1,090	245	262	275	3,150
Oxide:							
Belgium	3,130	879	1,130	341	269	56	2,330
China	9,150	841	1,720	262	542	941	4,050
Hong Kong	656	166	166	50		33	366
Mexico	6,710	1,760	1,870	640	817	688	5,130
South Africa	3,110	459	446	222	501	221	1,630
Other	205	44	37	7	14	19	117
Total	23,000	4,150	5,360	1,520	2,150	1,960	13,600
Grand total	37,900	5,950	6,860	1,810	2,470	2,340	17,600
Other antimony compounds (gross weight)	94	2	17	14	8	29	57

<sup>--</sup> Zero.

Source: U.S. Census Bureau. Antimony content is calculated by the U.S. Geological Survey.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Estimated 100% coverage based on reports from respondents who consumed 69% of the total antimony in 2001.

<sup>3/</sup> Includes ammunition, antimonial lead, bearing metals and bearings, cable coverings, castings, sheet and pipe, and solder.

<sup>4/</sup> Includes ammunition primers, pigments, ceramics and glass, and plastics.

<sup>5/</sup> Includes adhesives, pigments, rubber, and textiles.

 $<sup>1/\,\</sup>text{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Includes revisions to prior months data.